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EXAMINER

AFTERGUT, JEFF H

ART UNIT PAPER NUMBER

1733

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/839,082

Applicant(s)

CLIFFORD, DAVID D'ARCY

Examiner

Jeff H. Aftergut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clifford (US 5985457) or PCT WO 00/48831 further taken with any one of Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat optionally further taken with either one of Kojima et al or Japanese Patent 58-252216 for the same reasons as presented in paragraph 2 of the Office action dated 11-25-03.

The references to either one of PCT '831 or Clifford suggested that it was known per se to join a pair of metal skins together with a paper core of resin impregnated paper material in order to manufacture a vehicle body panel. The applicant is more specifically referred to column 1, lines 15-21 of Clifford where the reference expressly states that the sheets were used in the manufacture of vehicle bodies. The reference suggested that the sheets were formed from paper webs which were impregnated with a resin and which were adhesively secured to the skins of metal having the specified thickness, see for example Table 1 and Table 2 for example. The reference suggested the specified materials for the metal skins as defined at column 6, lines 49-57. the applicant is advised that the reference to PCT '831 suggested that one skilled in the art would have known to form the panels from two skins of metal attached together with a core of resin coated paper wherein the same was useful as a vehicle panel, see page 1, lines 4-7. the reference suggested that one skilled in the art would have employed metal skins of the specified thickness see page 4, lines 13-18. the reference additionally

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suggested suitable paper materials similar to that claimed, see page 4, lines 20-23, for example. Neither reference to Clifford or PCT '831 suggested that those skilled in the art at the time the invention was made would have incorporated a press to shape the panels to form a vehicle body part wherein one employed a die press to press the assembly to make the panel.

The references to any one of Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat et al suggested that those skilled in the art at the time the invention was made would have understood that in the manufacture of a vehicle body part one skilled in the art would have shaped the panels via a die pressing operation in a mold. It should be noted that each of these references suggested that the panels would have been formed from metal sheet material which was disposed in a die press and subjected to shaping. The references to each of Clifford and PCT '831 suggested that those skilled in the art at the time the invention was made would have incorporated the paper between the metal facing sheets in order to produce a lightweight panel material which was less expensive than a single sheet of metal and which retained the same strength qualities of the single sheet of metal. It would have been obvious in the operation of forming a vehicle panel that these sheet materials would have been subjected to a die pressing operation to form the panels into the desired shape as useful as a vehicle body panel material as the references to PCT '831 and Clifford suggested the assemblies would have been useful as panel materials and the references to any one of Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat et al suggested that the die press shaping was a common practice for shaping a metal sheet material into a vehicle panel.

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The applicant is additionally advised that it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the multilayer panels of either one of PCT '831 or Clifford in the operation of any one of Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat et al as such would have afforded one with increased and/or equal strength at a reduction in manufacturing costs.

Regarding the specifics of the metal layer and the paper layer, the applicant is referred to the references to Clifford and PCT '831 for a discussion of the specified properties. It should be noted that it would have been within the purview of the ordinary artisan to select a suitable material to the metal as well as the paper impregnated sheet cores. It should be noted that the references suggested that the core paper were preimpregnated with resin and thus one would have understood such would have included heating to partially polymerize the resin (which would have resulted in a drying and removal of volatiles from the resin). Such is taken as conventional in the art of preimpregnating materials where the resins are partially cured. Regarding the specifics of the die, one skilled in the art would have understood that such was a function of the shape of the finished panel one wished to attain and it certainly would have been within the purview of the ordinary artisan to select a suitable shape as a function of the desired shape of the finished panel.

While the references do not expressly suggest that one skilled in the art would have known how to die press a multilayer assembly which included metal skins. The applicant is advised that those skilled in the art at the time the invention was made would have reasonably expected that the operation would have worked in light of the

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teachings to either one of Kojima or Japanese Patent 58-151216. more specifically, both suggested that it was known per se to employ a die press to press a multilayer assembly and join the layers together. Clearly, in light of the die press molding suggested by either one of Japanese Patent '216 or Kojima, one skilled in the art at the time the invention was made would have expected that the die pressing of the panel assemblies of PCT '831 or Clifford would have worked when pressing according to the techniques of any one of Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat et al.

It should be noted that the rejection is clear from the discussions above. Namely, the rejection of claims 1-22 in this paragraph are essentially: (1) Clifford in view of any one of Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat (i.e. Clifford with one of the three secondary references alone) or further taken with either one of Japanese Patent 58-252216 or Kojima et al (which were optionally added to show that one skilled in the art would have known to employ a die press to assemble multiple layers together and shape the same simultaneously) or (2) PCT WO 00/48831 in view of any one of Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat (i.e. Clifford with one of the three secondary references alone) or further taken with either one of Japanese Patent 58-252216 or Kojima et al (which were optionally added to show that one skilled in the art would have known to employ a die press to assemble multiple layers together and shape the same simultaneously). There should be no confusion as to what the rejection is as it is clearly spelled out above.

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3. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 2 further taken with Hook et al or Hirota et al.

It should be noted that it was taken as intrinsic in the processing of the references as set forth above in paragraph 2 that if one subjected to laminate to a die pressing operation the periphery would have moved toward the center of the assembly as a function of the die pressing operation and the fact that there were no constraints on the edges of the assembly. To further evidence that one skilled in the art at the time the invention was made would have understood that such was taking place in the die pressing operation as set out above in paragraph 2, the references to Hook and Hirota are cited. Hook suggested that conventional die pressing operations with metal would have resulted in the periphery of the blank being drawn inward, see column 1, lines 42-50 for example. The reference to Hirota (who holds the blank during the forming operation in the die, clearly depicted the drawing of the blank inward as see in Figures 4 and 5. It would have been obvious to one of ordinary skill in the art at the time the invention was made that during the die press forming operation of the references as set forth above in paragraph 2 inward drawing would have taken place as evidenced by either one of Hirota et al or Hook et al in the manufacture of the automobile part.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claims 1-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, lines 14-15, the language "moving a periphery of said stack in a direction toward a center thereof while maintaining the thickness of the stack" appears. This is not clearly supported in the original disclosure. While the gap is defined as a uniform gap and the uniformity is maintained to vary not more than 2% (page 8 of the disclosure), there is no indication that the thickness of the stack was maintained to be substantially equal to the gap while moving the periphery of the stack in a direction toward the center. There is no disclosure of movement of the periphery of the stack toward the center as the thickness of the stack is maintained. While an argument can be made that the Figures do not depict a restraining means for the stack and therefore the stack must inherently move toward the center, such must be clearly established by applicant on the record. Additionally, antecedent basis for this language must be provided in the specification in order for this subject matter to be claimed. It should be noted that the rejections as set forth above establish the die pressing operation where the article moved toward the center was known as intrinsic as well as through evidence (Hirota et al or Hook et al). It is suggested that the language as it appears on lines 14-15 be changed to --moving a periphery of said stack in a direction toward a center thereof as the die press is closed to the forming position having said uniform gap--.



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Additionally, applicant should make clear on the record that the moving of the periphery of the stack in a direction toward the center thereof is in fact inherent in the die press operation where no restraints are employed. As noted below, this language should also be added to the specification to provide antecedent basis for it in the specification.

***Specification***

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: There is no specific mention of the moving of the periphery of the stack in a direction toward the center thereof as now claimed.

***Response to Arguments***

7. Applicant's arguments filed 3-15-06 have been fully considered but they are not persuasive.

The applicant argues that there is no motivation to employ the techniques of any one of die pressing operation of any one of Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat to form the structural panel of either one of Clifford or PCT '831. the applicant is advised that this argument has not been found to be persuasive. The applicant is advised that both of the references to Clifford or PCT '831 suggested that formation of a vehicle body from the multilayer assembly which included metal skins and a paper core would have had benefits associated with the same such as weight reduction without loss of strength and/or rigidity. As such, it would have been obvious to one of ordinary skill in the art at the time the invention was made to press the

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stacks of either one of Clifford or PCT '831 in the manner described by any one of Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat. Additionally, the references to Clifford and PCT '831 were both formed into vehicle body panels in some manner. It should be noted more specifically that PCT '831 suggested that one skilled in the art would have pressed the multilayer assembly together in a press arrangement. To employ conventional shaping operations to form the assembly into a panel for a vehicle body would have been undertaken by those skilled in the art in order to obtain a finished vehicle body panel. Additionally, note that the references to either one of Kojima or Japanese Patent 58-151216 suggested that the die pressing arrangement would have been utilized with multilayer assemblies (stacks) when forming the same into a desired shape where the shaping and laminations took place simultaneously. One skilled in the art at the time the invention was made would have understood that the die press arrangements of any one of Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat would have been a suitable process for shaping a vehicle panel which was formed from a stack of sheet materials as the reference to Kojima or Japanese Patent 58-151216 suggested such processing was useful and the use of a paper core for such a laminate was desirable as evidenced by either one of Clifford or PCT '831.

Certainly, there is motivation beyond merely just the fact that either one of Clifford or PCT '831 were related to vehicular body panels and the references to any one of Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat suggested suitable shaping techniques for the same. The benefits of weight reduction at no cost to strength are well understood in the vehicle industry and certainly a desirable outcome.

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One skilled in the art would have been motivated to perform the proposed operation for the reasons given. Applicant suggested that there was a hindsight reconstruction of the claimed invention. However, applicant is advised that it is not seen how it can be construed as hindsight reconstruction when specific reasons for the combination have been given as to why one skilled in the art would have performed the claimed operation.

Regarding the addition of the reference to Hook et al or Hirota et al, one skilled in the art would have understood that pressing the assembly in a die press without the use of restraints on the edges would have resulted in the periphery of the stack being drawn inward as the press assembly was closed. Such was previously deemed to have been intrinsic in the process and thus would have been understood to have taken place in the processes of the other prior art references where no restraints on the periphery of the assembly were provided.

Regarding the new matter rejection, it should be noted that there is no indication in the original disclosure that the thickness of the stack was maintained during the closure of the press. While the gap is in fact described as uniform, there is no indication as expressly set forth that the periphery of the assembly would in fact be drawn toward the center of the stack. The applicant is advised that such was in fact taken as intrinsic in the die pressing operation. It is believed that such is the case and that applicant should in fact expressly state on the record that no restraining means were associated with the stack in the die press and that the periphery was in fact drawn into the center during the die pressing operation. Additionally applicant should add such language to

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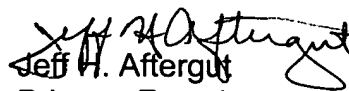
the specification in order to provide antecedent basis for the language recited in the claim.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jeff H. Aftergut  
Primary Examiner  
Art Unit 1733

JHA  
April 19, 2006